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09/888,473	06/25/2001	Jeffrey Allen Jones	AUS920010398US1	8699
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IBM CORP (YA) C/O YEE & ASSOCIATES PC P.O. BOX 802333 DALLAS, TX 75380			EXAMINER NGUYEN, DUSTIN	
			ART UNIT 2154	PAPER NUMBER
			NOTIFICATION DATE 07/28/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptonotifs@yeeiplaw.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/888,473	JONES ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	DUSTIN NGUYEN	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10 and 12-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. Claims 1, 2, 4-10 and 12-19 are presented for examination.

***Response to Arguments***

2. In view of the Appeal Brief filed on 05/02/2008, PROSECUTION IS HEREBY REOPENED. A non-final Office Action is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

3. Ground of Rejection I: 35 U.S.C. §101

A. As per remarks, Applicant's arguments, see Appeal Brief, pages 13-16 with respect to claims 1, 9 and 17 concerning not producing a tangible result, have been fully considered and are persuasive. The 35 U.S.C. §101 rejection of claims 1, 9 and 17 has been withdrawn.

B. As per remarks, Applicant's arguments, see Appeal Brief, page 12 with respect to claim 9 concerning 35 U.S.C. §101 rejection of computer readable medium, are not persuasive. Claim 9 is directed to a computer program product in a computer readable medium wherein the computer readable medium, according to paragraph 0038 of specification, also includes transmission-type media, such as digital and analog communication links, wired or wireless communications links using transmission forms, such as, radio frequency and light wave transmission. Applicant has provided evident that Applicant intends the medium to include signals as such the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore this claim is not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not combination of substances and therefore not a composition of matter. Therefore, the claim remains rejected under 35 U.S.C. §101 rejection as directed to non-statutory subject matter.

C. As per remarks, Applicant's arguments, see Appeal Brief, page 12 with respect to claims 15 and 16 concerning 35 U.S.C. §101 rejection of computer readable medium, have been fully

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considered and are persuasive since the claims do not contain “computer readable medium”. The previous 35 U.S.C. §101 rejection of claims 15 and 16 has been withdrawn. However, claims 15 and 16 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter, i.e. software per se, as mentioned below under 35 U.S.C. §101 rejection.

4. Ground of Rejection II: 35 U.S.C. §103

A. As per remarks, see Appeal Brief, pages 17 and 18 with respect to claim 1, Applicant's argued that (1) Boykin does not teach "wherein each peer-to-peer server stores a unique file piece of the plurality of file pieces which is not stored on other of the peer-to-peer servers".

As to point (1), Boykin discloses a distributed network including a plurality of hosts and a shared communication channel, each host has a storage device and acts as a client and a server, and a file is divided into a plurality of segments, each segments is transmitted to the storage devices of several of said hosts and stored in said storage device of said host [ Abstract; and paragraphs 0017-0019 ]. So, the question is, as broadly and reasonably interpreted, does Boykin disclose the claimed limitation of each peer-to-peer server stores a unique file piece of the plurality of file pieces which is not stored on other of the peer-to-peer servers? And Examiner finds it does. Specifically, Boykin discloses a distributed network which includes a plurality of hosts and a shared communication channel, each host is coupled to the shared communication channel and each host acts as both a client and a server [ i.e. peer-to-peer environment ] [ Figure 4; and paragraphs 0013, 0015 and 0017 ]. In Boykin, a file is divided into a number of segments,

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each segment has a secure hash function, which is used to compute a message digest that basically acts as a unique identifier for the contents of the segments [ i.e. a unique file piece of the plurality of file pieces ] [ Figure 5; and paragraphs 0033 and 0034 ]. Then, each segment is transmitted and stored in storage device of several hosts [ Abstract; paragraph 0038; and claim 1 ]. Boykin discloses a process of incasting which *allows a client to download a file from the distributed network by putting together fragments of the file obtained from different servers that maintain partial copies of the desired file, the system of incasting will work even if no individual server has the complete file, but as long as the complete file is collectively available on the whole distribute network, a network directory maintains a list of (IP) addresses for the servers where the file is located partially or in full, and if a server has only parts of the desired file, then a succinct description of the content stored in the server is also included* [ i.e. broadly interpreted as each peer-to-peer server stores a unique file piece of the plurality of file pieces which is not stored on other of the peer-to-peer servers as claimed ] [ paragraphs 0032, 0034, 0035 and 0036 ]. Furthermore, in Figure 2, Boykin also provides prior art that shows an example of how six video programs are divided into data strip and sequentially distributed over 78 blocks of storage from multiple servers [ i.e. broadly interpreted as a unique file piece of the plurality of file pieces which is not stored on other of the peer-to-peer servers as claimed ] [ paragraphs 0028 and 0029 ]. Therefore, the prior art clearly discloses the claimed limitation, and as such renders Applicant's claimed language as written, unpatentable over the prior art of record.

B. As per remarks, see Appeal Brief, pages 19 and 20 with respect to claims 7, 15 and 18, Applicant's argued that (2) none of the cited references teach a first machine that (1) requests and

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receives a file piece from a server and in addition also (2) receives a request for a file piece (as redirected by a server).

As to point (2), Examiner respectfully disagrees. Specifically, Lutterschmidt discloses client servers share a set of a plurality of data server nodes that are connected to the client nodes, and a central server node monitors these data server nodes and performs a dynamic assignment of client nodes to data server nodes [ Abstract; and col 1, lines 59-64 ]. The Lutterschmidt reference discloses a control unit that controls the downloading of data set stored in the content server nodes into the storage unit, and upon receipt of a control message to one of the content server nodes, which *requests the content server node to load a data set with a specified content into the data server nodes* [ i.e. a first machine that requests and receives a file piece from a server as argued by the Applicant ] [ col 3, lines 54-64; and col 5, lines 5-18 ]. Then, if the control unit receives a request message from one of the client nodes, it determines in which of the data server nodes, a data set with the specific content is stored, the control unit sends the message to the data server node, which is the assigned data server node, it requests the data server node to transfer data with the specified content to the client node, and it is also possible that the control unit informs the assigned data server node, and *the client node then sends the message to this assigned data server node* [ i.e. a first machine also receives a request for a file piece as argued by the Applicant ] [ col 5, lines 38-60; and col 7, lines 16-32 ]. As such, the prior art clearly discloses the claimed limitation, and thus renders Applicant's claimed language as written, unpatentable over the prior art of record.

C. As per remarks, see Appeal Brief, pages 20-22 with respect to claims 8, 16 and 19, Applicant's argued that (3) in Lutterschmidt, there is not teaching or suggestion of the claimed feature of "receiving, by the first machine and without further request of the requested file piece by the first machine, the requested file piece from a second machine containing a copy of said file piece in lieu of receiving the requested file piece from the server, the copy of said file piece on the second machine being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine".

As to point (3), Examiner respectfully disagrees. Lutterschmidt discloses the client node sends a message to request that it be supplied with a data stream with a specified content, then the control unit assigns the data server node to the requesting client node, and sends the message to the data server node, with this message, it *requests the data server node to transfer data with the specified content to the client node* [ i.e. broadly interpreted as receiving, by the first machine and without further request of the requested file piece by the first machine, the requested file piece from a second machine containing a copy of said file piece in lieu of receiving the requested file piece from the server as claimed ] [ col 6, lines 59-63; and col 7, lines 16-32 ], wherein the data with specified content of the data server nodes is first downloaded from the content server nodes into one of the data server nodes before it provides these data to the client node [ i.e. broadly interpreted as the copy of said file piece on the second machine being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine as claimed ] [ col 3, lines 54-64; col 5, lines

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5-18; and col 7, lines 1-15 ]. As such, the prior art clearly discloses the claimed limitation, and thus renders Applicant's claimed language as written, unpatentable over the prior art of record.

### ***Specification***

5. Examiner requests Applicant to update status of related application as mentioned in the disclosure, page 1.

### ***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As per claim 9, the specification, paragraph 0038, discloses intrinsic evident that “computer readable medium” includes signal, radio frequency and light wave transmission, as such, they are not patentable ( Please see Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, MPEP, 2106 ).

Claims 15 and 16 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. It appears claims 15 and 16 would reasonably be interpreted by one of ordinary skill as software per se, failing to fall within a statutory category of invention. Applicants’ disclosure contains no explicit and deliberate definition for the terms

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“computer program product”, and in the context of the disclosure and claims in question, one of ordinary skill would reasonably interpret “computer program product comprising instructions” as software applications. As such, software alone is not a machine, it is clearly not a process, manufacture nor composition of matter.

Claim 18 is rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. It appears claim 18 would reasonably be interpreted by one of ordinary skill as a system of software per se, failing to fall within a statutory category of invention. Applicants’ disclosure contains no explicit and deliberate definition for the terms “first component” and “second component”, and in the context of the disclosure and claims in question, one of ordinary skill would reasonably interpret the components as software. As such, the system of software alone is not a machine, it is clearly not a process, manufacture nor composition of matter.

Note: As per claims 17 and 19, they are not rejected under 35 U.S.C. §101 since the specification discloses communication links to network computers may be provided through modem and network adapter [ e.g. Examiner interprets the receiver recited in the claim as modem or network adapter, i.e. a hardware device ]. Therefore, the claims are not rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter, i.e. software per se.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4-10 and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boykin [ US Patent Application No 2002/0078461 ], in view of Lutterschmidt [ US Patent No 6,356,947 ].

9. As per claim 1, Boykin discloses the invention substantially as claimed including a method for distributing information in a computer network [ i.e. distributed network which includes a plurality of hosts and a share communication channel ] [ Figure 1; Abstract; and paragraphs 0017 and 0018 ], the method comprising:

dividing an electronic file into a plurality of file pieces [ i.e. a file is divided into plurality of segments ] [ Figure 5; Abstract; and paragraphs 0033 and 0038 ];

downloading all of said file pieces to a plurality of client machines [ i.e. video program is distributed over the plurality of the disk units ] [ Figure 2; and paragraphs 0004, 0029 and 0035 ], wherein the client machines function as peer-to-peer servers for other client machines requesting said file pieces [ i.e. each host may act as both a client and a server ] [ Figure 4; Abstract and paragraphs 0030 and 0038 ], wherein each peer-to-peer server stores a unique file piece of said file pieces which is not stored on other of the peer-to-peer servers [ i.e. unique identifier for the content of the segment and servers may contain partial list of the content ] [ Figure 2; and paragraphs 0032, 0034 and 0036 ];

receiving a request for a file piece from a first client machine [ i.e. the client requesting a download ] [ paragraph 0037 ] and downloading the requested file piece to the first client machine [ i.e. requesting client gather the segments together ] [ Abstract; and paragraphs 0030 and 0035 ]; and

receiving a request for said file piece from a second client machine [ i.e. a host acting as a client requests that the other hosts acting as a servers and collectively send all of the segments to the requesting client ] [ Abstract; and paragraph 0038 ].

Boykin does not specifically disclose

if said file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for said file piece from the first client machine, redirecting the request of the second client machine to the first client machine.

Lutterschmidt discloses

if said file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for said file piece from the first client machine [ i.e. the client node C1 requests a specified content .... the content server node CONTS1 sends the data set to the data server node SS1, where the data set is stored ] [ Figure 3; col 6, lines 50-col 7, lines 15 ], redirecting the request of the second client machine to the first client machine [ i.e. the control unit SH requests the data server node to transfer data with the specified content to the client node C1 ] [ col 7, lines 24-32 ].

It would have been obvious to combine to a person skill in the art at the time the invention was made to combine the teaching of Boykin and Lutterschmidt because the teaching of Lutterschmidt on redirecting request would enable a client node with transparent access to the

content and resources of a plurality of data server nodes and have transparent access to a larger number of contents with a lower probability of rejection [ Lutterschmidt, col 2, lines 3-18 ].

10. As per claim 2, Boykin discloses if said file piece requested from the second client machine has not previously been downloaded to the first client machine, processing the request for said file piece from the second client machine by a server which maintains a complete copy of the electronic file in lieu of redirecting the request of the second client machine to the first client machine [ paragraphs 0036 and 0038 ].

11. As per claim 4, it is rejected for similar reasons as stated above in claim 1. Furthermore, Boykin discloses receiving a request for a file piece stored in a first peer-to-peer server which is no longer connected to the computer network [ i.e. some servers might not respond ]; and removing the first peer-to-peer server from a list of available peer-to-peer servers [ i.e. dropped from the list ] [ paragraph 0035 ].

12. As per claim 5, Boykin discloses sending a digest for a file piece to each client machine, which has received that file piece [ i.e. the message digest ] [ Figure 5; and paragraph 0033 ] and determining whether said given file piece is corrupted using the digest [ i.e. the message digest can be used to guarantee the integrity of the contents of the segments ] [ paragraph 0034 ].

13. As per claim 6, Boykin discloses receiving a message from a client, wherein the message indicates that a peer-to-peer server has corrupted said given file piece, disconnecting the peer-to-

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peer server responsible for corrupting said file piece [ i.e. if the connection is dropped ] [ paragraphs 0015 and 0035 ], and retransmitting said given file piece to said client, wherein the retransmitted file piece is free of any corrupting content [ i.e. start the request for that segment again ] [ paragraphs 0035 and 0036 ].

14. As per claim 7, it is rejected for similar reasons as stated above in claims 1 and 2.

Furthermore, Boykin discloses wherein the electronic file is stored in a server [ paragraphs 0004 and 0027 ].

15. As per claim 8, it is rejected for similar reasons as stated above in claim 1. Furthermore, Boykin does not specifically disclose receiving, by the first machine and without further request of the requested file piece by the first machine, the requested file piece from a second machine containing a copy of said file piece in lieu of receiving the requested file piece from the server, the copy of said file piece on the second machine being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine. Lutterschmidt discloses receiving, by the first machine and without further request of the requested file piece by the first machine, the requested file piece from a second machine containing a copy of said file piece in lieu of receiving the requested file piece from the server, the copy of said file piece on the second machine being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine [ i.e. because the specified content has not been stored in the data server node SS1, ... the content server node CONTS1 sends the data set to the data server node

SS1 ...then the control unit SH sends the message to data server node SS1 to request the data server node to transfer data with the specified content to the client node C1 ] [ Figure 3; and col 7, lines 1-31 ]. It would have been obvious to combine to a person skill in the art at the time the invention was made to combine the teaching of Boykin and Lutterschmidt because the teaching of Lutterschmidt on redirecting request would enable a client node with transparent access to the content and resources of a plurality of data server nodes and have transparent access to a larger number of contents with a lower probability of rejection [ Lutterschmidt, col 2, lines 3-18 ].

16. As per claims 9, 10, 12-14, they are program product claimed of claims 1, 2, 4-6, they are rejected for similar reasons as stated above in claims 1, 2, 4-6.

17. As per claims 15 and 16, they are program product of claims 7 and 8, they are rejected for similar reasons as stated above in claims 7 and 8.

18. As per claims 17-19, they are apparatus claimed of claims 1, 7 and 8, they are rejected for similar reasons as stated above in claims 1, 7 and 8.

19. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (571) 272-3971. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached at (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Dustin Nguyen/  
Primary Examiner, Art Unit 2154

/Nathan J. Flynn/  
Supervisory Patent Examiner, Art Unit 2143